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# GeoExplorer 2008 Series GeoXT and GeoXM Handhelds: FAQs for Customers

This document provides information that is common to all models of handheld in the Trimble® GeoExplorer® 2008 series, followed by information that is specific to the GeoXT™ and GeoXM™ handhelds.

## GeoExplorer 2008 series questions

### What is the GeoExplorer 2008 series?

The GeoExplorer 2008 series is a range of GPS handhelds from Trimble that are powered by the Windows Mobile® version 6 operating system. These handhelds integrate the power of Windows Mobile software with a high-performance Trimble GPS receiver, Bluetooth® and wireless LAN technology, and a SD/SDHC storage card slot—all in a rugged, portable handheld.

The GeoExplorer 2008 series comprises:

- The GeoXH™ handheld, which uses H-Star™ technology to provide subfoot (30 cm) accuracy in real time or after postprocessing, and decimeter (10 cm/4 in) accuracy with an optional Zephyr™ antenna.
- The GeoXT handheld, providing submeter real-time or postprocessed accuracy.
- The GeoXM handheld, providing 1–3 meter real-time or postprocessed accuracy.

The GeoExplorer 2008 series represents a breakthrough in GPS handheld technology—providing GIS professionals and mobile GIS users with the ultimate platform for all applications.



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## What are the key features of the GeoExplorer 2008 series?

Each model in the GeoExplorer 2008 series offers a different level of accuracy. However, all models offer:

- *Real-time capability*: With integrated SBAS support as well as the ability to connect to a wide variety of real-time correction sources, you can get the accuracy you need, when you need it.
- *High-resolution VGA display*: Provides crisp and clear viewing of your data.
- *Bluetooth and wireless LAN connectivity options*: Use the built-in wireless LAN connection to access your organization's secure network and get the most up-to-date information. Use the built-in Bluetooth wireless technology, to connect the handheld to a Bluetooth-enabled cellular phone for access to the Internet and receive real-time corrections from a VRS™ network and background map data. You can also wirelessly connect to other devices such as Bluetooth-enabled laser rangefinders and barcode scanners for convenient cable-free solutions that keep you productive in the field.
- *1 GB onboard storage plus SD slot for removable cards*: Enables you to take all the background data you need into the field.
- *Windows Mobile version 6 operating system*: The Windows Mobile 6 operating system includes familiar Microsoft® software, giving you all the tools you need for a seamless exchange of data between the field and the office.
- *Ruggedness*: The receiver is rugged and resistant to heavy wind-driven rain, and comes with an all-day battery, so it can work as hard as you do, wherever you work.

## What software is available for my field requirements?

A range of software is available for the GeoExplorer 2008 series including:

- Trimble TerraSync™ software version 3.21 or later
- ESRI ArcPad version 7.1.0 or later with the Trimble GPScorrect™ extension for ESRI ArcGIS version 2.41 or later
- Custom software developed with the Trimble GPS Pathfinder® Tools Software Development Kit (SDK) version 2.31 or later
- GPS data collection applications using the industry-standard NMEA protocol, designed for the Windows Mobile 6 operating system.

***Note:*** *Real-time subfoot capability is only available if you are using the TerraSync software, the GPScorrect extension, or an application based on the GPS Pathfinder Tools SDK.*

## What are the features and benefits of the Windows Mobile 6 operating system?

Windows Mobile is Microsoft's premier operating system for mobile devices. With a familiar Microsoft user interface, it provides a wide range of standard software applications that work seamlessly with your desktop operating system. The Windows Mobile operating system supports a host of communication options so you can be mobile and still have access to your enterprise data, email, and the Internet. The GeoExplorer 2008 series runs the Windows Mobile 6 operating system, allowing you to choose from the most comprehensive range of software available to meet your field requirements. In addition, the operating system features new security enhancements, for more robust use when connected to a network, and persistent storage so your data is protected from unexpected power loss.

## What software is standard with the GeoExplorer 2008 series?

- GPS Controller and GPS Connector software for full GPS control, comprehensive status information, and in-field mission planning.
- Microsoft Outlook® Mobile applications including Today, Messaging, Calendar, Contacts, Tasks, and Notes.
- Microsoft ActiveSync® software and Microsoft Windows Mobile Device Center for connecting the handheld to computers running the Windows Vista®, Windows® XP, or 2000 operating system, and for synchronization of files with Outlook Mobile applications.
- Microsoft standard productivity tools for mobile applications including Word Mobile, Excel Mobile, PowerPoint Mobile, Internet Explorer, and calculator for day-to-day tasks.
- Bluetooth settings for configuring and controlling Bluetooth wireless connections.
- Windows Media® player to allow playback of sound and video files.

## Can I change the language used by the Windows Mobile 6 operating system?

The first time you turn on your handheld, you must select the language used by the Windows Mobile 6 operating system. You can only select the language once.

To change the language used on the handheld after you have already used the handheld for the first time, you must return the handheld to your Trimble service provider.

The following languages are supported by the GeoExplorer 2008 series handheld: English, French, German, Japanese, Korean, Italian, Portuguese (Brazilian), Spanish. A separate version is also available with Chinese (Simplified) and Russian.

## What storage cards do the GeoExplorer 2008 series handhelds support?

The GeoExplorer 2008 series handhelds support both SD and SDHC (high capacity SD) storage cards which are available in various capacities.

## How are the GeoExplorer 2008 series handhelds powered?

GeoExplorer 2008 series handhelds are powered by an internal rechargeable Lithium-ion battery. When fully charged, the internal battery of the handheld provides enough power for a full working day. Use the support module and AC adaptor provided to recharge the internal battery. To extend the time between charges, Trimble offers an optional external power kit and a vehicle power adaptor.

## What can I use the GeoExplorer 2008 series handheld's wireless LAN capabilities for?

The GeoExplorer 2008 series handheld has an integrated wireless Local Area Network (LAN) radio compliant with IEEE 802.11 b/g that you can use to receive data anywhere within the range of a wireless LAN access point. Wireless LAN is often referred to as Wi-Fi. A wireless LAN connection can be used to connect to the Internet (at broadband speeds) via an 802.11b or 802.11g wireless LAN access point. 802.11b has a maximum speed of 11 Mbps, and 802.11g has a maximum speed of 54 Mbps. Security options such as 802.1x, WEP, and WPA are supported.

There are many publicly available wireless LAN access points (also known as "hotspots"). To locate nearby access points, use Internet sites such as www.jiwire.com.

Using the wireless LAN radio in a GeoExplorer 2008 series handheld has no impact on GPS performance, but note that battery power is consumed faster when there is an active connection to a wireless LAN access point.

## What can I use the GeoExplorer 2008 series handheld's Bluetooth capabilities for?

The GeoExplorer 2008 series handheld has an integrated Bluetooth radio that you can use to establish cable-free connections to other Bluetooth devices within a range of 10 meters.

Using a Bluetooth wireless connection, you can communicate with Bluetooth-enabled devices such as a cellular phone, desktop computer, GeoBeacon™ receiver, laser rangefinder, or barcode scanner. You can also communicate with peripheral devices that use Bluetooth adaptors instead of serial or USB connections.

Using the Bluetooth radio in a GeoExplorer 2008 series handheld has no impact on GPS performance, but note that battery power is consumed faster when there is an active connection to another Bluetooth-enabled device.

## Does the GeoExplorer 2008 series support Internet access using a Bluetooth DUN or PAN connection to a Bluetooth-enabled phone?

Yes, you can access the Internet by creating a Bluetooth DUN or PAN connection to a Bluetooth enabled cell phone. For more information, refer to the *GeoExplorer 2008 Series User Guide* or the support notes available from the Support Downloads page for the GeoXH, GeoXT, or GeoXM handheld at www.trimble.com/support.shtml.

## Can I deactivate the Bluetooth and wireless LAN radios in the GeoExplorer 2008 series handhelds?

To ensure simple out-of-the-box operation, both the Bluetooth and wireless LAN radios are activated by default in GeoExplorer 2008 series handhelds when they are shipped from Trimble.

The Bluetooth radio is off by default, but can be turned on by configuring it in the Bluetooth settings application.

The wireless LAN radio is on by default and is ready to use, but can be turned off when not in use.

If you must deactivate the Bluetooth or wireless LAN radios so that they can not be turned on, run the Radio Activation Manager. You can download this software from the Support Downloads page for the

GeoXH, GeoXT, or GeoXM handheld at www.trimble.com/support.shtml. You can also use the Radio Activation Manager software to reactivate the radios later if you wish.

### Does the GeoExplorer 2008 series support cabled Ethernet connections?

No, the GeoExplorer 2008 series handheld does not support cabled Ethernet connections. Use the integrated wireless LAN radio to transfer data at Ethernet speeds.

### What trade-in programs are available for the GeoExplorer 2008 series?

Trimble is offering a range of trade-in options on new GeoExplorer 2008 series handhelds. For further information, please contact your Trimble reseller.

### Where can I get more information?

For further information, go to www.trimble.com/geoxm.shtml or www.trimble.com/geoxt.shtml, or contact your Trimble reseller.

## GeoXT and GeoXM handheld questions

### What real-time correction options are available for the GeoXT and GeoXM handheld?

Using the handheld's integrated Bluetooth wireless technology and a Bluetooth-enabled cellular phone, you can connect to the Internet to access corrections from a VRS™ network or base station. Alternatively, connect wirelessly to a Trimble GeoBeacon receiver for real-time beacon corrections.

In addition, all GeoExplorer 2008 series handhelds come standard with SBAS capability—WAAS in North America, EGNOS in Europe, and MSAS in Japan.

The GeoExplorer 2008 series supports real-time correction messages in the RTCM 2.x, RTCM 3.0, CMR, and CMR+ formats.

### What level of accuracy can I expect with the GeoXT handheld?

The GeoXT handheld provides submeter real-time or postprocessed horizontal accuracy within 80 km of a base station.

Except when using corrections from a VRS network, real-time or postprocessed accuracy degrades by +1 ppm beyond 80 km (50 miles) from the base station.

### What level of accuracy can I expect with the GeoXM handheld?

The GeoXM handheld provides 1–3 meter (3 to 10 ft) real-time or postprocessed horizontal accuracy within 80 km (50 miles) of a base station.

Except when using corrections from a VRS network, real-time or postprocessed accuracy degrades by +1 ppm beyond 80 km (50 miles) from the base station.

## How can I make sure I get the best possible accuracy when collecting data?

The GeoXT and GeoXM handhelds are designed to be used with the internal antenna (under the Trimble logo) horizontal and with a clear view of the sky.

If you are using the Trimble TerraSync software to collect data, use accuracy-based logging to ensure the features collected meet your accuracy requirements. To obtain the most accurate results in real time, connect to VRS network or other correction source and apply the differential corrections to your data.

If you are not using the Trimble TerraSync software, Trimble recommends that you log GPS data for at least 30 seconds, using a 1-second logging rate, when collecting point features or vertices. Collecting multiple positions for a static feature helps to improve accuracy by averaging out the errors in individual GPS positions. In heavy canopy, or other difficult environments, logging for 1 to 2 minutes is recommended.

## What external antenna options are available for the GeoXT and GeoXM handhelds?

The GeoXT and GeoXM handhelds support both the Hurricane antenna and the External Patch antenna. The Hurricane antenna is recommended for best yield and performance, while the External Patch antenna offers a low-cost solution. The External Patch antenna has a magnetic base, whereas the Hurricane antenna requires a magnetic mount to attach to a vehicle.

## Can I use a GeoXT or GeoXM handheld as a base station?

The GeoXT handheld can be used with the TerraSync software to log a file with L1 data as a temporary base station solution. The GeoXT handheld is not supported as a base receiver in the TRS™ (Trimble Reference Station) software, GPSBase software, or other Trimble base station software.

The GeoXM handheld cannot be used as a base station.